

CLAIMS

1. (Currently amended) A method for detecting fraud when facilitating a payment transaction over a global wide area network, the method comprising:
receiving sale information pertaining to a purchase of a product from a seller;
receiving payment information from a buyer;
performing automated analysis of transaction information including the sale information and the payment information to detect whether the transaction information indicates fraud;

if the automated analysis does not detect fraud, instructing the seller to send the product to the buyer and crediting an account of the seller for the purchase in response to an indication that the buyer received the product; and

if the automated analysis detects fraud, communicating an enhanced transaction information to a human for manual fraud analysis.

2. (Original) The method of Claim 1 wherein the sale information is received from a seller, and the method further comprises:

communicating an invoice to a buyer.

3. (Original) The method of Claim 1 wherein the sale information is received from the buyer, and the method further comprises:

communicating a sale confirmation request to the seller.

4. (Original) The method of Claim 1 further comprising:
performing simple screening of the transaction information.

5. (Original) The method of Claim 4 wherein performing simple screening comprises at least one of:

determining whether a financial account specified as part of the payment information is on a list of known fraudulent financial account numbers;

determining whether the name of the buyer or the name of the seller is on a list of known fraudulent users;

determining whether a shipping address specified as part of the payment information is on a list of known fraudulent addresses;

determining whether a billing address specified as part of the payment information is on a list of known fraudulent addresses;

determining whether a billing address specified as part of the payment information is on a list of known fraudulent addresses;

determining whether an email address of the buyer or the seller is on a list of known fraudulent email addresses; and

determining whether an Internet protocol (IP) address of the buyer or the seller is on a list of known fraudulent IP addresses.

6. (Original) The method of Claim 1 further comprising:

seeking approval from a financial institution based on the payment information.

7. (Original) The method of Claim 6 wherein seeking approval comprises:

sending a request for approval that comprises at least an account information extracted from the payment information and an amount information to a financial institution;

receiving from the financial institution a response to the request;

rejecting the payment transaction or continuing with the payment transaction responsive to the response.

8. (Original) The method of Claim 1 wherein performing automated analysis comprises:

performing rule-based analyses.

9. (Original) The method of Claim 8 wherein performing rule-based analyses comprises:

applying a plurality of rules to the transaction information such that a score for the payment transaction is incremented when one of the rules is violated.

10. (Original) The method of Claim 9 wherein performing rule-based analyses further comprises:

creating the enhanced transaction information if the score exceeds a predefined threshold such that the enhanced transaction information comprises a tracking number, the score, and a violated rule information.

11. (Original) The method of Claim 9 wherein applying comprises:
incrementing the score responsive to a numeric value assigned to the rule violated.

12. (Original) The method of Claim 9 wherein the plurality of rules comprise at least one of a plurality of suspect data rules and a plurality of velocity rules.

13. (Original) The method of Claim 12 wherein the plurality of suspect data rules comprise at least some of:

comparison of a shipping address with a directory of known real addresses;
comparison of a shipping address with a list of addresses implicated in prior possibly fraudulent transactions;
comparison of a billing address with a directory of known real addresses;
comparison of a billing address with a list of addresses implicated in prior possibly fraudulent transactions.

14. (Original) The method of Claim 12 wherein the plurality of velocity rules comprise at least some of:

determining whether a first number of transactions involving the seller exceeds a first predefined threshold for a first predefined time period;


determining whether a second number of transactions involving the buyer exceeds a second predefined threshold for a second predefined time period;

determining whether a first total dollar amount for a first plurality of transactions involving the buyer exceeds a third predefined threshold for a third predefined time period;

determining whether a second total dollar amount for a second plurality of transactions involving the seller exceeds a fourth predefined threshold for a fourth predefined time period;

determining whether a third total dollar amount for a specified financial account exceeds a fifth predefined threshold for a fifth predefined time period;

determining whether a third number of transactions involving the specified financial account exceeds a sixth predefined threshold for a sixth predefined time period.



15. (Original) The method of Claim 12 wherein the plurality of velocity rules comprise at least some of:

determining whether a financial account specified as part of the payment information has exceeded a predetermined acceptable number of times used over a predetermined period of time;

determining whether a financial account specified as part of the payment information has exceeded a predetermined acceptable number of times used over a predetermined number of transactions with the seller;

determining whether a financial account specified as part of the payment information has exceeded a predetermined acceptable number of times used over a predetermined number of transactions with a payment facilitator system.

16. (Original) The method of Claim 1 wherein communicating an enhanced transaction information comprises sending an email message to at least one of a plurality of human fraud investigators.

17. (Original) The method of Claim 1 further comprising:

if the analyzing indicates fraud, notifying the buyer and/or a seller that the payment transaction is on hold pending the outcome of a fraud investigation.

18. (Original) The method of Claim 17 wherein notifying comprises:
sending an email message to the buyer and/or the seller.

19. (Currently amended) A system comprising:

- a first computer supporting communications over a wide area network by a buyer;
- a second computer supporting communications over the wide are network by a seller;
- a third computer supporting communications over the wide are network and executing software that facilitates a payment transaction between the buyer and the seller such that the third computer
 - analyzes the payment transaction for fraud by applying a plurality of rules and incrementing a score for the payment transaction for each of the plurality of rules that is violated,
 - if the score does not exceed a predefined threshold, instructs the seller to send a purchased product to the buyer and credits an account of the seller for the payment transaction in response to an indication that the buyer received the purchased product, and
 - if the score exceeds a predefined threshold, communicates an information about the payment transaction to a human fraud investigator.

20. (Original) The system of Claim 19 further comprising:
a fourth computer capable of communications with the third computer and allowing the human fraud investigator to communicate with the third computer.

21. (Original) The system of Claim 20 wherein the third computer is coupled to the fourth computer via a dedicated communications line.

22. (Original) The system of Claim 20 wherein the third computer communicates with the fourth computer over the wide area network.

23. (Original) The system of Claim 19 further comprising:
a fifth computer capable of communications with the third computer and responding on behalf of a financial institution to a request for authorization of the payment transaction initiated by the software executing on the third computer.

24. (Original) The system of Claim 23 wherein the third computer is coupled to the fifth computer via a dedicated communications line.

25. (Original) The system of Claim 23 wherein the third computer communicates with the fifth computer over the wide area network.

26. (Original) The system of Claim 19 wherein the wide area network is the Internet.

27. (Currently amended) A machine readable medium having stored thereon instructions which when executed by a processor cause the machine to perform operations comprising:

receiving sale information pertaining to a purchase of a product from a seller;
receiving payment information from a buyer;

performing automated analysis of transaction information including the sale information and the payment information to detect whether the transaction information indicates fraud;

if the automated analysis does not detect fraud, instructing the seller to send the product to the buyer and crediting an account of the seller for the purchase in response to an indication that the buyer received the product; and

if the automated analysis detects fraud, communicating an enhanced transaction information to a human for manual fraud analysis.

28. (Original) The machine readable medium of Claim 27 wherein the instructions cause the machine to perform operations further comprising:
performing simple screening of the transaction information.

29. (Original) The machine readable medium of Claim 28 wherein performing simple screening comprises at least one of:
determining whether a financial account specified as part of the payment information is on a list of known fraudulent financial account numbers;

determining whether the name of the buyer or the name of the seller is on a list of known fraudulent users;

determining whether a shipping address specified as part of the payment information is on a list of known fraudulent addresses;

determining whether a billing address specified as part of the payment information is on a list of known fraudulent addresses;

determining whether a billing address specified as part of the payment information is on a list of known fraudulent addresses;

determining whether an email address of the buyer or the seller is on a list of known fraudulent email addresses; and

determining whether an Internet protocol (IP) address of the buyer or the seller is on a list of known fraudulent IP addresses.


30. (Original) The machine readable medium of Claim 27 wherein the instructions cause the machine to perform operations further comprising:
seeking approval from a financial institution based on the payment information.

31. (Original) The machine readable medium of Claim 30 wherein seeking approval comprises:

sending a request for approval that comprises at least an account information extracted from the payment information and an amount information to a financial institution;

receiving from the financial institution a response to the request;
rejecting the payment transaction or continuing with the payment transaction responsive to the response.

32. (Original) The machine readable medium of Claim 27 wherein performing automated analysis comprises:
performing rule-based analyses.




33. (Original) The machine readable medium of Claim 32 wherein performing rule-based analyses comprises:
applying a plurality of rules to the transaction information such that a score for the payment transaction is incremented when one of the rules is violated.

34. (Original) The machine readable medium of Claim 33 wherein performing rule-based analyses further comprises:
creating the enhanced transaction information if the score exceeds a predefined threshold such that the enhanced transaction information comprises a tracking number, the score, and a violated rule information.

35. (Original) The machine readable medium of Claim 33 wherein applying comprises:
incrementing the score responsive to a numeric value assigned to the rule violated.

36. (Original) The machine readable medium of Claim 33 wherein the plurality of rules comprise at least one of a plurality of suspect data rules and a plurality of velocity rules.

37. (Original) The machine readable medium of Claim 27 wherein communicating an enhanced transaction information comprises sending an email message to at least one of a plurality of human fraud investigators.



38. (Original) The machine readable medium of Claim 27 wherein the instructions cause the machine to perform operations further comprising:

if the analyzing indicates fraud, notifying the buyer and/or a seller that the payment transaction is on hold pending the outcome of a fraud investigation.

39. (Original) The machine readable medium of Claim 38 wherein notifying comprises:

sending an email message to the buyer and/or the seller.
